Digital jumper cable status report

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- Century status
- Basic status
- 2.5 mm connector issues

Century

- 50 cm L2-5 prototypes: 10 built Oct. 2002
  R of fine traces typically ~ 40% high. Why?

  8 bench-tested @ La Tech or K-State

  5 OK

  3 have manufacturing defects:

  1 open, 2 shorts, 2 intermittent opens
  Opens & intermittents are in 5 mil traces

  2 in use with test stations (Where?) OK?

- Phone meeting with Century engineers 1/6/03
  Action items:

  1. In-house electrical testing for opens & shorts
  Century will (soon) quote cost of rig and testing

  2. Century will measure line width & thickness of a cable to look for cause of high R

  3. Cable with invisible intermittent sent to Century for microscope inspection

- 100 cm prototypes

  Quote $5K for 20

  On hold pending resolution of quality control

- Test station cables

  Quote $8.7K for 300

  On hold pending resolution of quality control

Basic

- 50 cm L2-5 prototypes (10)

  10 bench-tested @ K-State June 2002

    2 open/intermittent (pad/ablation problem)

    3 subsequently failed in use @ FNAL

      6 open/intermittent lines (connector joints)

      1 short (near/at end, not seen)

- 50 cm L0-1 prototypes (10) ~ 6 Sep 02

  No bench-testing, put into test station use

  No reported failures (but no systematic records)

- 100 cm L0-1 prototypes (20)

  Manufacturing difficulties, 3 tries

  Try #1: NG

  Try #2: Yield of 5

    To Bob Jones 3 Dec 02. Now at … ?

  Try #3: Yield of (at least) 15

    Will go for ablation this week (new mask)

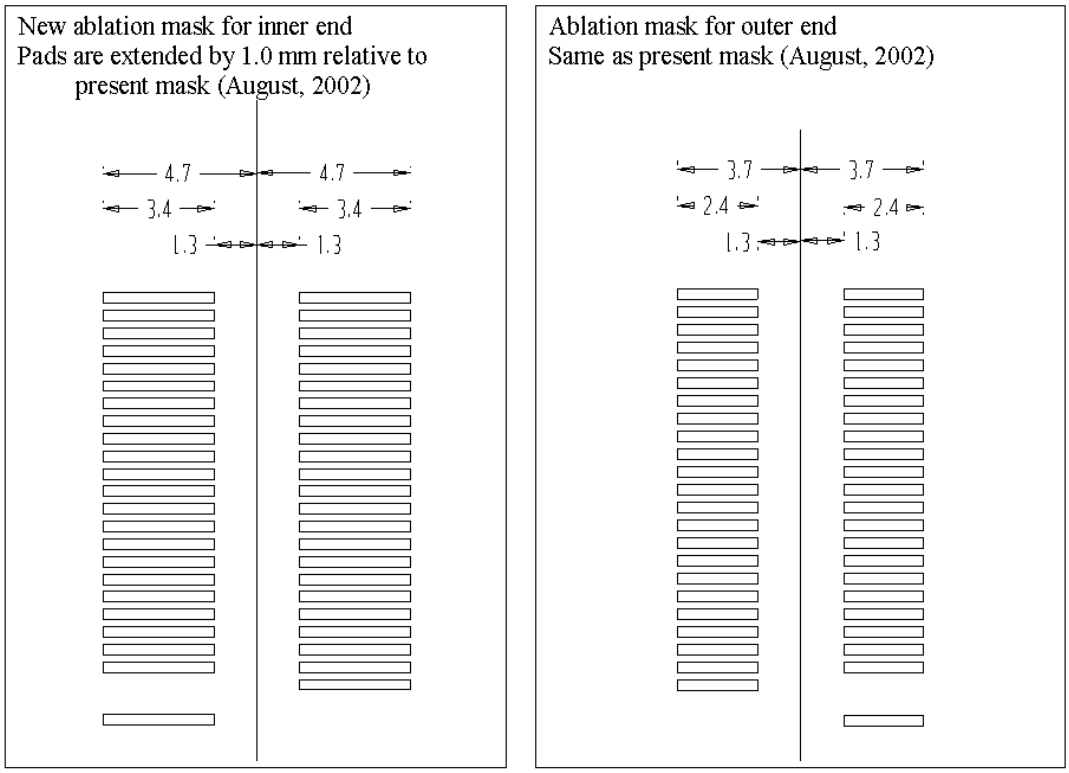
- Test station cables

  Quote $14K for 150

  FNAL encouraged to submit PO

2.5 mm connectors

- Plan:
  2.5 mm receptacle on hybrid end
  3.0 mm plug on outer end
- 2.5 mm footprint too wide for present ablation
  (± 4.0 mm from centerline vs ± 3.4 mm)
- New mask to be made by ALT (inner end only)
  Will extend 0.5 mm beyond gold pad edge
  (Present mask ends 0.5 mm inside pad edge)



- 15 Basic 100 cm cables to use this mask

Time scale for new mask/ablation ~ 2 weeks

- Mechanical issues (insertion/extraction force; tool)
  Hans J. has volunteered to investigate